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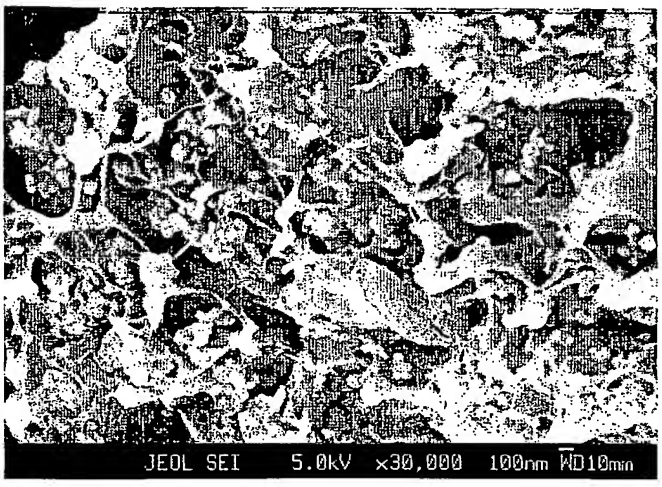
(54) Title: PVC-PCC NANOCOMPOSITES RESIN COMPOSITION WITH SUPERIOR IMPACT STRENGTHS AND METHOD FOR PREPARING THE SAME



(57) Abstract: The present invention relates to a PVC based nanocomposite resin composition with superior impact strength and a method for preparing the same. The method according to the present invention comprises the steps of: adding nano calcium carbonate and a lipophilic dispersing agent to a vinyl chloride monomer; adding the resultant mixture system to an aqueous solution system comprising deionized water, a suspension stabilizer and apolymerization initiator to prepare a suspension system and performing polymerization at an elevated temperature to prepare a PVC based nanocomposite resin composition; and processing the PVC based nanocomposite resin composition with at least one impact modifier selected from the group consisting of a methyl methacrylate-butadiene-styrene copolymer, an acrylic impact modifier and a chlorinated polyethylene. Preferably, the nano calcium carbonate is uniformly distributed in the vinyl chloride particles, so that improvement in impact strength and reduction of impact modifier required for processing the resin can be attained.

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